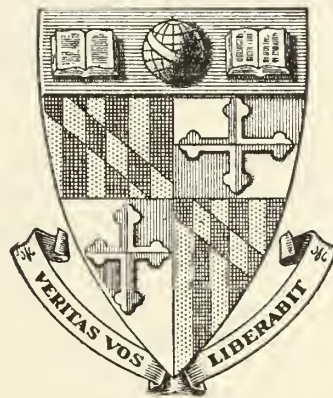


THE JOHNS HOPKINS UNIVERSITY
BALTIMORE, MARYLAND

CONFERRING OF DEGREES

AT THE CLOSE OF THE EIGHTY-FIRST ACADEMIC YEAR

JUNE 11, 1957



KEYSER QUADRANGLE

AT TEN A. M.

ORDER OF PROCESSION

CHIEF MARSHAL

C. VANN WOODWARD

Divisions

The President of the University,
the Commencement Speaker,
the Chaplain, Honored Guests,
the Trustees

The Faculties

The Graduates

Marshals

ALSOPH H. CORWIN

CHARLES A. BARKER

GEORGE S. BENTON

HAROLD E. HOELSCHER

WALTER S. KOSKI

JAMES M. MCKELVEY

ALPHONSE CHAPANIS

GEORGE F. CARTER

ALVIN NASON

JOHN WALTON

MARGARET MERRELL

R. CARMICHAEL TILGHMAN

WILLIAM T. PHILLIPS

STANLEY CORRSIN

USHERS

The ushers are undergraduate students of
The Johns Hopkins University

ORGANIST

JOHN H. ELTERMANN

The audience is requested to stand as the academic procession moves into the area
and to remain standing until after the Invocation and the
singing of the National Anthem

ORDER OF EXERCISES

PRESIDENT MILTON STOVER EISENHOWER PRESIDING

PROCESSIONAL “ Festival March ”—*E. Batiste*

INVOCATION THE VERY REVEREND VINCENT F. BEATTY, S. J.
President, Loyola College of Baltimore

THE NATIONAL ANTHEM

ADDRESS NATHAN M. PUSEY
President, Harvard University

CONFERRING OF HONORARY DEGREES Nathan M. Pusey*presented by Professor Boas*
Alan Mason Chesney*presented by Professor Turner*
Herbert McLean Evans*presented by Professor Richter*
William Hennick Martin*presented by Professor Hamburger*
Tracy Sonneborn*presented by Professor Glass*

CONFERRING OF DEGREES ON CANDIDATES Bachelors of Arts*presented by Dean Cox*
Bachelors of Science in Business
Bachelors of Engineering Science*presented by Dean Roy*
Bachelors of Engineering
Masters of Science in Engineering*presented by Dean Roy*
Doctors of Engineering
Bachelors of Science*presented by Dean Mumma*
Bachelors of Science in Nursing
Bachelors of Science in Engineering
Masters of Science in Engineering
Masters of Education
Certificates of Advanced Study
 in Education
Masters of Science in Hygiene*presented by Professor Stebbins*
Doctors of Science in Hygiene
Masters of Public Health
Doctors of Public Health
Doctors of Medicine*presented by Dean Bard*
Masters of Arts, School of
 Advanced International Studies*presented by Dean Thayer*
Doctor of Philosophy, School of
 Advanced International Studies
Masters of Arts*presented by Professor Andrews*
Doctor of Education
Doctors of Philosophy

CHARGE TO GRADUATES PRESIDENT EISENHOWER

BENEDICTION

RECESSIONAL “ Grand March ”—*E. Grieg*

The audience is requested to remain standing after the Benediction
until the faculties have left the area.

CANDIDATES FOR DEGREES

BACHELORS OF ARTS

- JOSEPH JAMES ABATA, of Southington, Conn.
JOHN THEODORE ABRAMS, of Paterson, N. J.
FRANK McADAMS ALBRECHT, JR., of Arlington, Va.
MELVIN JOHN ALEXANDERWICZ, of Trenton, N. J.
DOUGLAS GEORGE ALLAN, of Garden City, N. Y.
JOHN RICHARD ALLEN, of Baltimore, Md.
MORTON ARNOLD ALTERMAN, of Passaic, N. J.
ROBERT EDWARD BAENSCH, of Washington, D. C.
EARL LEWIN BAKER, of Baltimore, Md.
PETER BANKER, of Baltimore, Md.
CLAUDE ERCEL BARFIELD, of Newport News, Va.
GERALD RAYMOND BENNETT, of Baltimore, Md.
BROWNELL DRAKE BERGEN, of New York, N. Y.
JOSEPH WILLIAM BERKOW, of Baltimore, Md.
DAVID HENRY BERNSTEIN, of Baltimore, Md.
MYRON BARRY BLUM, of Baltimore, Md.
ANTHONY RUSSELL BOCCUTI, of Baltimore, Md.
PETER MAXWELL BOWER, of Summit, N. J.
RICHARD EDWIN BRADBURY, of Baltimore, Md.
JAMES SOMERVILLE BUDDO, JR., of Baltimore, Md.
JOHN SYDNEY BURGAN, of Baltimore, Md.
HERBERT HARRISS BUTLER, JR., of Baltimore, Md.
SALVATORE JAMES CANTOLINO, of Brooklyn, N. Y.
JEROME HARRIS CARR, of Baltimore, Md.
DARRYL CARTER, of Baltimore, Md.
WILLIAM SHEPARD CAUSEY, of Baltimore, Md.
BENJAMIN RICHARD CIVILETTI, of Jefferson Valley, N. Y.
CALVIN PORTER CLAXTON, JR., of Arlington, Va.
JOHN EDWARD COOPER, of Baltimore, Md.
ROBERT HARRIS COOPER, JR., of Baltimore, Md.
FINTON PARSONS CORDELL, of Lutherville, Md.
LESTER HENKE CROWTHER, JR., of Baltimore, Md.
CLIFFORD LEWIS CULP, JR., of Baltimore, Md.
JOHN GAYLORD CUMMINS, of Buffalo, N. Y.
EUGENE DiCERO, of Staten Island, N. Y.
JAY ROBERT DORFMAN, of Baltimore, Md.
MARK JOSEPH DOYLE, of Baltimore, Md.
ROBERT MANSON DUNTON, JR., of Garden City, N. Y.
WILLIAM WARREN DWYER, of Perth Amboy, N. J.
RICHARD ELLIS, of Woodmere, N. Y.
WILLEM JAN EVERTS, of Baltimore, Md.
OWEN ELKINS FANG, JR., of Arlington, Va.
ROGER WILLIAM FINLAY, of Baltimore, Md.
PHILLIP ELLSWORTH FOOS, of Baltimore, Md.
DANIEL MARTIN FORSYTH, of Baltimore, Md.
BENJAMIN HOWARD FRANKLIN, of Metuchen, N. J.
HASWELL McCULLOUGH FRANKLIN, of Baltimore, Md.
ANTON JOHN FREDRIKSEN, of Elmont, N. Y.
JOHN PETER FREELAND, of Waukegan, Ill.
JOSEPH RICHARD GAGLIANO, of Jacksonville, Fla.
RAY FILLMORE GARMAN, of Washington, D. C.
GEORGE OTTO GEY, JR., of Baltimore, Md.
DONALD EDWARD GOLDSTONE, of Baltimore, Md.
THEODORE NESTOR GRASER, III, of Needham, Mass.
WILLIAM FREDERICK GUNKEL, of Baltimore, Md.
CHARLES EUGENE HAWLEY, of Painesville, Ohio
JOHN HOWARD HECK, of Baltimore, Md.
GARY RUSSELL HEDGES, of Juneau, Alaska
WALTER ROBERT HEIDELBACH, of Baltimore, Md.
GEORGE WETHERBEE HELFRICH, of Baltimore, Md.
ALFRED HERMANN, III, of Baltimore, Md.
GERALD ALAN HOFKIN, of Baltimore, Md.
LEONARD MARTIN HOROWITZ, of Baltimore, Md.
JOHN JOSEPH HUGHES, JR., of Annapolis, Md.
ROMILLY FRANCIS HUMPHRIES, III, of Baltimore, Md.
WILLIAM FALKNER HUNTER, of Baltimore, Md.
DOUGLAS WAYNE HUTCHINGS, of San Benito, Tex.
GROVER MACGREGOR HUTCHINS, of Monkton, Md.
FRANKLIN OLIVER HYDE, JR., of Baltimore, Md.
KENNETH FREDERICK IRELAND, of Baltimore, Md.
WALLACE STEPHEN JOHNSON, JR., of Hampton, Va.
JOHN CHRISTOPHER COLUMBUS JUSTIS, JR., of Baltimore, Md.
JOSEPH HENRY HERBST KAPLAN, of Hagerstown, Md.
RICHARD PAUL KAPP, of Hastings-on-Hudson, N. Y.
GEORGE ALEXANDER KAY, III, of Baltimore, Md.
LEE CROMWELL KEFAUVER, of Frederick, Md.
LEWIS MACWILLIAMS KIRBY, JR., of Baltimore, Md.
RICHARD P. KLEIN, of New York, N. Y.
MASUO J. KOIKE, of New York, N. Y.
DONALD FREDERICK KRACH, of Baltimore, Md.
HERBERT ALLAN KUSCHER, of Englewood Cliffs, N. J.
WINTER VERNON LANTZ, JR., of Baltimore, Md.
MANUEL HERBERT LAZEROV, of Baltimore, Md.
MARC STEPHEN LEVENTHAL, of Washington, D. C.
CHARLES HOWARD LEWIS, of Roslyn, N. Y.
ARNOLD ALLEN LILIEN, of Newark, N. J.
DEAN JAMES LIMBERT, of Youngstown, Ohio
WILLIAM D. MAYER, of Riverdale, N. Y.
JOHN FRANKLIN MAYO-WELLS, of Washington, D. C.
MACLYN MCCARTY, JR., of New Rochelle, N. Y.
HUGH KEARNS McCRYSTAL, of Arlington, Va.
KENNETH WAYNE MCGRAW, of Cumberland, Md.
ROBERT FRANCIS McHUGH, of Delmar, N. Y.
DONALD IAN McLEOD, of Baltimore, Md.
JAMES JOSEPH McNAMEE, III, of Baltimore, Md.
OTIS LADOW MILBY, of Baltimore, Md.
DAVID MILGROME, of Baltimore, Md.
SIDNEY CARROLL MILLER, JR., of Baltimore, Md.
ROBERT NEWTON MITGANG, of Chicago, Ill.
JOHN BRUCE MOORES, of Baltimore, Md.
CHARLES LOUIS MORREELS, JR., of Baltimore, Md.
EDWARD RICHARD MULLADY, of Rockville Centre, N. Y.
ARTHUR ABERCROMBIE NELSON, of Baltimore, Md.
ROBERT YUN KWING NG, of Hong Kong, B. C. C.
DONALD OWEN NUTTER, of Washington, D. C.

MORRIS WOLF OFFIT, of Baltimore, Md.
 BRUCE DAVID PATNER, of Chicago, Ill.
 DONALD REX PATTERSON, of Fairfield, Iowa
 JOHN WALTER PAYNE, of Baltimore, Md.
 AMERICO JOSEPH PEDORELLA, Jr., of Providence, R. I.
 JAMES IRWIN PESSIN, of Milwaukee, Wis.
 CHARLES BERT PITCHER, of Arlington, Va.
 JOSEPH IRVIN POKEMPNER, of Baltimore, Md.
 ROBERT EXUM POWELL, of Baltimore, Md.
 PETER LEWIS PUTNAM, of Yuba City, Calif.
 STEPHEN SEYMOUR RAYNOR, of Pompton Plains, N. J.
 EDWARD CAPLES REICHERT, of Monkton, Md.
 JAMES JOHN ROBINSON, of Newark, N. J.
 JOHN ALEXANDER MURRAY ROTHNEY, of Washington,
 D. C.
 ROBERTSON RUSHTON, of Philadelphia, Pa.
 LLOYD ERLE SAMPLE, of Baltimore, Md.
 LEWIS I. SANK, of Bradley Beach, N. J.
 RICHARD FRANCIS SCHILLACI, of Baltimore, Md.
 MICHAEL JAY SCHWARZ, of Baltimore, Md.
 REGINALD OWEN SEAR, of Chatham, N. J.
 STUART ALAN SELIGSON, of New York, N. Y.
 EMANUEL I. SHARGEL, of Baltimore, Md.
 KIMBALL BOOTHE SHERRY, of Mt. Holly, N. J.
 LOUIS MAIER SHERWOOD, of Hempstead, N. Y.
 EDWARD BURTON SHIFFMAN, of Baltimore, Md.
 ALVIN SIGER, of Baltimore, Md.
 HARRY EDWARD SILVERWOOD, Jr., of Baltimore, Md.
 WILLIAM SINGLE, III, of Baltimore, Md.
 DENNETT CLINTON SLEMP, of Big Stone Gap, Va.

CHARLES JACOB SMEARMAN, of Baltimore, Md.
 JAMES ERNEST SPITZNAS, of Baltimore, Md.
 GORDON MALVERN FAIR STICK, Jr., of Glen Arm, Md.
 PETER GRAFTON STREETT, of Baltimore, Md.
 ALEXANDER SUE-PING, of Georgetown, British Guiana
 GEORGE LEE SWIFT, of Catonsville, Md.
 DANIEL HARRIS SWITKY, of Yonkers, N. Y.
 HERMAN TETTELBAUM, of Brooklyn, N. Y.
 THOMAS JOHN USTACH, of Springfield, Mass.
 NORMAN CAREY VANDERNOOT, of Yonkers, N. Y.
 WALTER PAUL VETTER, of Baltimore, Md.
 JACK ELLSWORTH WALKER, of Baltimore, Md.
 JAMES CLOUD WALLACE, of Hollywood, Calif.
 GEORGE BYRD PAGE WARD, Jr., of Owings Mills, Md.
 HOWARD JULES WASKOW, of Baltimore, Md.
 STEPHEN BRUCE WEISSMAN, of New York, N. Y.
 ROBERT CLEWS WHEELER, II, of Mundy Point, Va.
 GERALD KENNETH WILLIAMSON, of Wilbraham, Mass.
 IAN ALISTAIR WILLIAMSON, of Flushing, N. Y.
 WILLIAM FRANKLIN WILLOUGHBY, II, of Warwick, Va.
 IRVIN MARVIN WINER, of Baltimore, Md.
 BARRIE ROSS WOOD, of Teaneck, N. J.
 JOHN JOEL WOODEY, of Baltimore, Md.
 SEYMOUR SYLVAN YAFFE, of Baltimore, Md.
 WILLIAM ANTHONY YANNUZZI, of Baltimore, Md.
 FRANK COLEMAN YOUNG, of Arlington, Va.
 JACK M. YOUNG, of New York, N. Y.
 RICHARD ALBERT ZDANIS, of Baltimore, Md.
 MARCOS A. ZEQUEIRA, Jr., of San Juan, Puerto Rico
 RICHARD FRANKLIN ZIBNER, of Woodmere, N. Y.

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GRADUATING WITH GENERAL HONORS

EARL LEWIN BAKER	DANIEL MARTIN FORSYTH	ALVIN SIGER
CLAUDE ERCAL BARFIELD	LEONARD MARTIN HOROWITZ	WILLIAM SINGLE, III
JOSEPH WILLIAM BERKOW	JOSEPH HENRY HERBST KAPLAN	DENNETT CLINTON SLEMP
RICHARD EDWIN BRADBURY	RICHARD PAUL KAPP	WALTER PAUL VETTER
SALVATORE JAMES CANTOLINO	DEAN JAMES LIMBERT	HOWARD JULES WASKOW
DARRYL CARTER	ROBERT FRANCIS MCHUGH	ROBERT CLEWS WHEELER, II
JOHN GAYLORD CUMMINS	JAMES JOSEPH MCNAMEE, III	IRVIN MARVIN WINER
EUGENE DICERO	SIDNEY CARROLL MILLER, JR.	WILLIAM ANTHONY YANNUZZI
JAY ROBERT DORFMAN	JOHN ALEXANDER MURRAY ROTHNEY	FRANK COLEMAN YOUNG
MARK JOSEPH DOYLE	LOUIS MAIER SHERWOOD	RICHARD ALBERT ZDANIS
RICHARD ELLIS		

GRADUATING WITH DEPARTMENTAL HONORS

FRANK McADAMS ALBRECHT, Jr.	DANIEL MARTIN FORSYTH	JOHN ALEXANDER MURRAY ROTHNEY
MORTON ARNOLD ALTERMAN	GERALD ALAN HOFKIN	STUART ALAN SELIGSON
EARL LEWIN BAKER	LEONARD MARTIN HOROWITZ	LOUIS MAIER SHERWOOD
CLAUDE ERCAL BARFIELD	KENNETH FREDERICK IRELAND	ALVIN SIGER
JOSEPH WILLIAM BERKOW	JOSEPH HENRY HERBST KAPLAN	WILLIAM SINGLE, III
RICHARD EDWIN BRADBURY	ARNOLD ALLEN LILLEN	DENNETT CLINTON SLEMP
SALVATORE JAMES CANTOLINO	MACLYN MCCARTY, Jr.	HOWARD JULES WASKOW
DARRYL CARTER	JAMES JOSEPH MCNAMEE, III	IRVIN MARVIN WINER
JOHN GAYLORD CUMMINS	SIDNEY CARROLL MILLER, JR.	JOHN JOEL WOODEY
EUGENE DICERO	EDWARD RICHARD MULLADY	FRANK COLEMAN YOUNG
JAY ROBERT DORFMAN	JOHN WALTER PAYNE	RICHARD ALBERT ZDANIS
MARK JOSEPH DOYLE	PETER LEWIS PUTNAM	

BACHELORS OF SCIENCE IN BUSINESS

WILLIAM TRUMBULL, of Baltimore, Md.

HARRY ADAM ZOLLER, of Linthicum Heights, Md.

(2)

BACHELORS OF ENGINEERING SCIENCE

PHILIP MAXWELL ADAMS, of Hagerstown, Md.

JORDAN ALLEN AGRONICK, of Providence, R. I.

JAMES GEORGE ANDERSON, of Baltimore, Md.

ARTHUR GERALD ARTHUR, of Cumberland, Md.

ERIC EVAN AUERBACH, of Pleasantville, N. Y.

WILLIAM CLAUDE BAREHAM, Jr., of Baltimore, Md.

THEODORE ALBERT BICKART, of Laurel, Md.

STUART LEE BRAUN, of Baltimore, Md.

THOMAS EDWARD BRIMER, Jr., of Snow Hill, Md.

JAMES MILTON BURKE, of Baltimore, Md.

HOWARD LEE CHERTKOF, of Baltimore, Md.

WILLIAM HARRY CLOSE, of Baltimore, Md.

CHARLES VERNON COFFMAN, of Baltimore, Md.

ANDREW FRANK CONN, of Silver Spring, Md.

CLEMENT WASHINGTON CROOKS, Jr., of Baltimore, Md.

WILLIAM NORTH CROUT, Jr., of Baltimore, Md.

RICHARD CARLTON CRUTCHFIELD, Jr., of Catonsville, Md.

DONALD LAWRENCE CULBERTSON, of Baltimore, Md.

FRED NELSON DAILEY, Jr., of Baltimore, Md.

KENNETH EARL DAUB, of Baltimore, Md.

THOMAS GORTON DEAN, of Baltimore, Md.

ROBERT CASIMIR DERNOGA, of Baltimore, Md.

DAVID JOSEPH DUMIN, of Baltimore, Md.

OISTEIN WINDINGLAND ELIASSEN, of Baltimore, Md.

THOMAS WARFIELD EMORY, of Centreville, Md.

EUGENE ALEXANDER EWACHIW, of Baltimore, Md.

GEORGE LOUIS FISCHER, of Baltimore, Md.

RICHARD KARL FOX, of Colorado Springs, Colo.

MELVIN KEMMETER FROME, of Baltimore, Md.

RALPH ALBERT GAKENHEIMER, of Towson, Md.

DONALD CHARLES GALLAGHER, of Johnstown, Pa.

JOHN VERNON GALLOWAY, of Baltimore, Md.

THOMAS MARTIN GIBSON, of Carteret, N. J.

WILLIAM JOHN GILLICH, of Baltimore, Md.

JOHN PETER GRYNKIEWICZ, of Pelican Island, N. J.

GEORGE HENRY HOFFMANNER, of West Chester, Pa.

WILLIAM FREDERIC HOTCHKIN, Short Hills, N. J.

RICHARD KUO-CHI HSIEH, of Taipei, Taiwan.

ROBERT LYONS HUTCHINS, of Owings, Md.

HENRY MILTON HYATT, of Baltimore, Md.

FRANCIS C. JOHN ICHNIOWSKI, of Baltimore, Md.

JOHN VERNON INSLEY, Jr., of Baltimore, Md.

RUSSELL EUGENE JONES, of Baltimore, Md.

STEPHEN JOHN KACALA, of Baltimore, Md.

ROGER WILLIAM KANE, of Chicago, Ill.

HARVEY ALBERT KASINOFF, of Baltimore, Md.

ROWLAND EDWIN KING, of Baltimore, Md.

WILLIAM JOSEPH KOLOMAZNIK, of Baltimore, Md.

EDWARD PAUL KRAUSE, of Baltimore, Md.

IRVIN WILLIAM KUES, of Baltimore, Md.

JOHN KENT LINDQUIST, of Springfield, Mass.

DONALD LOUIS LUBIN, of Baltimore, Md.

RAYMOND URBAN MAY, Jr., of Baltimore, Md.

SHELDON FRANKLIN MAYER, of Baltimore, Md.

LEWIS GARY MILLER, of Baltimore, Md.

STUART GILLMORE MORRIS, of Howard County, Md.

ALBERT JEROME MUSCIANO, Jr., of Baltimore, Md.

RONALD PAYTON PELTZER, of Baltimore, Md.

WALTER RADEK, Jr., of Baltimore, Md.

JOHAN SYBRAND REUYL, of Baltimore, Md.

DANIEL ROBERT SACHS, of Baltimore, Md.

RALPH WALLACE SAMM, of Baltimore, Md.

FRED LEWIS SAMMONS, of South Portsmouth, Ky.

CHARLES SUMAN SCHRODEL, Jr., of Frederiek, Md.

WILLIAM PORTER SHORT, of Baltimore, Md.

CARLTON NEWELL SMITH, of Rockville Centre, N. Y.

LEONARD ALBERT STEIN, of Harrisburg, Pa.

RALPH JEROME STEINITZ, of Baltimore, Md.

JOHANNES WALTER STEN, of North East, Md.

RONALD MORRIS STRAKA, of Reading, Pa.

ROLF STUENES, of Baltimore, Md.

JOHN CLARKE TANKERSLEY, of Baltimore, Md.

WILLIAM ANTHONY TESO, of Hillburn, N. Y.

DONALD COLMAN TITUS, of Chevy Chase, Md.

JOSEPH GABRIEL TRUNK, of Baltimore, Md.

JOHN ELMER TYDINGS, of Baltimore, Md.

VERNON EDWIN UNGER, Jr., of Federalsburg, Md.

ROBERT HARDESTY UPTON, of Baltimore, Md.

JAMES JOHN VALIS, of Baltimore, Md.

ROGER LINLEY VANRIPER, of Rockville, Md.

JAMES THOMAS WARFIELD, of Baltimore, Md.

ROBERT McLANE WARFIELD, of Woodbine, Md.

ROBERT ECHOLS WILLBANKS, of Baltimore, Md.
HENRY HOWARD WISCH, of Baltimore, Md.
SAMUEL J. WRIGHT, of Baltimore, Md.

CHARLES WILLIAM WYBLE, of Baltimore, Md.
NICOLAUS MYKOLA ZDOR, of Baltimore, Md.

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GRADUATING WITH HONORS

THEODORE ALBERT BICKART
ANDREW FRANK CONN
GEORGE LOUIS FISCHER

IRVIN WILLIAM KUES
ROLF STUENES
JOSEPH GABRIEL TRUNK

BACHELORS OF ENGINEERING

RONALD DALE NICKLES, of Baltimore, Md.
ORIS CLIFFORD PERKINS, JR., of Baltimore, Md.

ALAN LEONARD WEBB, of Vienna, Md.

(3)

MASTERS OF SCIENCE IN ENGINEERING

WITH TITLES OF ESSAYS

ALI ARMAN, of Istanbul, Turkey, B. E. S. The Johns Hopkins University, 1955. Aeronautics.

Optical Auto-Correlation Measurement of a Two Dimensional Random Pattern.

RANSOM EDWARD BARBER, of Highland Falls, N. Y., B. S. United States Military Academy, 1951. Industrial Engineering.

On the Use of Abbreviated Messages for a Congested Communications Channel.

ELBERT EDWIN DENHARD, JR., of Baltimore, Md., B. S. M. E. Purdue University, 1941. Mechanical Engineering.

The Relationship between Stress Corrosion Cracks and Crystallographic Orientation in Face Centered Cubic Metals.

ILDEU DUARTE, FILHO, of Belo Horizonte, Brazil, Dipl. in C. E. The University of Minas Gerais, 1951. Sanitary Engineering and Water Resources.

Analysis of Small Pipe Networks.

DAVID WILLIAM DUTTWEILER, of Snyder, N. Y., B. S. C. E. University of Michigan, 1948. Sanitary Engineering and Water Resources.

The Use of High Temperature Incubation in the Determination of *Escherichia Coli* in Water by Membrane Filter Methods.

WALTER EDWARD EASON, JR., of Baltimore, Md., B. S. Ch. E. Drexel Institute of Technology, 1943. Chemical Engineering.

Nitric Phosphates.

DONALD FRANCIS HASKELL, of Baltimore, Md., B. E. S. The Johns Hopkins University, 1955. Mechanical Engineering.

Effect of Dislocations and Grain Boundaries upon the Dynamic Formation of Slip Bands in Aluminum.

STANLEY KAUFMAN, of Baltimore, Md., B. E. The Johns Hopkins University, 1948. Civil Engineering.

Theory and Design Coefficients of Elliptical Rings.

LLOYD KING LAUDERDALE, of Baltimore, Md., B. S. United States Naval Academy, 1949. Electrical Engineering.

An Analysis of Receivers with Random Noise Inputs.

JOHN JOSEPH LENTZ, of Baltimore, Md., B. S. United States Military Academy, 1952. Sanitary Engineering and Water Resources.

Areal Rainfall Depth and Intensity in the Baltimore Area.

JOHN HOWARD PARK, JR., of Washington, D. C., B. S. University of Maryland, 1954. Electrical Engineering.

Junction Transistors in Pulse and Video Circuits.

JAMES REID PFAFFLIN, of Connersville, Ind., B. S. Indiana State Teachers College, 1954; B. E. S. The Johns Hopkins University, 1956. Sanitary Engineering and Water Resources.

Some Aspects of the Problem of Heat Evolved in a Stored Radioactive Waste.

ISVARA IYER RADHAKRISHNAN, of Madras, India, B. S. University of Madras, 1950. Sanitary Engineering and Water Resources.

Behavior of Hydrogen Sulphide during Droplet Aeration.

LYNN GRIFFITH RICHARDS, of Salt Lake City, Utah, B. S. E. E. United States Naval Academy, 1935. Mechanical Engineering.

Time and Temperature Relationships in the Catalytic Oxidation of 25 Cr-20Ni Steel Contaminated with Vanadium Pentoxide Slags.

DONALD JAY SASS, of Baltimore, Md., B. E. S. The Johns Hopkins University, 1955. Electrical Engineering.

A Study of the Vulnerability of the Heart to Ventricular Fibrillation by Alternating Current Shocks of Various Magnitudes and Durations.

JOSEPH HENRY SHAFIELD, of Birmingham, Ala., B. S. E. E. Alabama Polytechnic Institute, 1949. Industrial Engineering.

Newspaper Local Display Advertising—A Comparison of Cost and Revenue.

RADEN SOEDIGNO, of Bandung, Java, Indonesia, Dipl. Chem. Institute for Technical Hygiene, Bandung, 1941. Sanitary Engineering and Water Resources.

Removal of Coloring in Swamp Water.

JERALD DONHAM SOLLEY, of Texarkana, Ark., B. S. E. E. Louisiana Polytechnic Institute, 1951. Electrical Engineering.

Electronic Voltage Regulators.

ALAN VICTOR STONE, of Woodbine, N. J., B. S. in Business The Johns Hopkins University, 1954. Industrial Engineering.

Variable Warehouse Labor Standards.

RICHARD HENRY STOTHOFF, of Flemington, N. J., A. B. The Johns Hopkins University, 1956. Sanitary Engineering and Water Resources.

Study of Three Differential Media Used in the Bacterial Analysis of Water with the Membrane Filter Technique.

JOHN LAWRENCE WAGNER, of Linthicum Heights, Md. B. S. E. E. West Virginia University, 1949. Electrical Engineering.

High Resolution Air-to-Ground Search Radar Considerations.

(21)

DOCTORS OF ENGINEERING

WITH TITLES OF DISSERTATIONS

ERIC BAER, of Baltimore, Md., M. A. The Johns Hopkins University, 1953. Chemical Engineering.

Heat Transfer in Condensation.

MORRIS ELLIS BRODWIN, of Baltimore, Md., B. Sc. E. E. University of Nebraska, 1947; M. S. E. The Johns Hopkins University, 1951. Electrical Engineering.

Electromagnetic Propagation in Gyromagnetic Media.

WILLIAM MILTON BROWN, of Baltimore, Md. B. S. E. E. West Virginia University, 1952; M. S. E. The Johns Hopkins University, 1955. Electrical Engineering.

Time Statistics of Noise.

VICTOR DEL GUERCIO, of Bloomfield, N. J., A. B. Indiana University, 1938; M. Sc. Rutgers University, 1950. Sanitary Engineering and Water Resources.

Treatment of Radioactive Solid and Liquid Waste by the Anaerobic Method.

CHARLES HERBERT GRAULING, JR., of Baltimore, Md., B. E. The Johns Hopkins University, 1944. Electrical Engineering.

An Analysis of the Inflection Point Method of Q Measurement with Some Important Extensions.

KENNETH MAYNARD KISER, of Schenectady, N. Y., B. S. Ch. E. Lawrence Institute of Technology, 1951. Chemical Engineering.

Chemical Reactions in a Water Tunnel.

THADDEUS JOSEPH PULA, of Baltimore, Md., B. E. E. Villanova College, 1947; M. S. E. The Johns Hopkins University, 1950. Electrical Engineering.

Flux Resetting Characteristics of Self-Saturating Magnetic Amplifier Cores.

S. PERRY SCHLESINGER, of Great Neck, N. Y., B. A. Michigan State College, 1941; M. S. E. Union College, 1950. Electrical Engineering.

Some Fundamental Properties of Dielectric Image Line.

WILLIAM HERMAN SCHWARZ, of Baltimore, Md., B. E. The Johns Hopkins University, 1951; M. S. E., 1955. Chemical Engineering.

Some Effects of Isotropic Turbulence on a Pendulum at Moderate Reynold's Number.

WILLIAM GALLAGHAN SOPER, of Clinton, Md., B. E. The Johns Hopkins University, 1952; M. S. E., 1953. Mechanical Engineering.

Bending of Orthogonally Stiffened Plates with Large Elastic Deformations.

STEPHEN CHARLES TRAUGOTT, of Baltimore, Md., B. E. The Johns Hopkins University, 1949; M. S. E., 1951. Mechanical Engineering.

The Influence of Solid Body Rotation on Turbulent Flow between Concentric Cylinders.

STANLEY JOHN WEIDENKOPF, of Baltimore, Md., B. S. University of Wisconsin, 1932; M. P. H. University of Minnesota, 1949. Sanitary Engineering and Water Resources.

Inactivation of Type I Poliomyelitis Virus by Chlorine.

(12)

BACHELORS OF SCIENCE

MARGARET EUGENIA ABERCROMBIE, of Baltimore, Md.

JOANN MARIE SMITH ANSELONE, of Tacoma, Wash.

DORIS MARIE ARMSTRONG, of Baltimore, Md.

HERBERT JUNIOR ASHMAN, of Baltimore, Md.

PIERCE BRILLHART BARANY, of Baltimore, Md.

WANDA EMILY BASARAB, of Baltimore, Md.

CHRISTINE A. T. BASS, of Baltimore, Md.

LOIS ARLENE BENICE, of Baltimore, Md.

ELLIOTT BERLIN, of Baltimore, Md.

JAMES EDMUND CALLAHAN, of Baltimore, Md.

KAARE GEORGE CHRISTIAN, of Fairhaven, Mass.

ROBERT EDWARD LEE CHUMBLEY, of Miami, Fla.

NELL PARKIN CODWISE, of Gaithersburg, Md.

CHARLES RHINEHART COOK, of Baltimore, Md.

CHARLES WALTER DERREVERE, of Roselle, N. J.

DOROTHY MARIE DIETZ, of Baltimore, Md.

DOROTHY WASHBURN DUBINSKAS, of Baltimore, Md.

WILLIAM HOWARD DUNCAN, Jr., of North Linthicum, Md.

GRAEME SANFORD EASSON, of Baltimore, Md.

THOMAS WHEATON FORD, of Perry Point, Md.

JOHN FRANK, of Arnold, Md.

JOHN WILLIAM GORE, Jr., of Baltimore, Md.

WARREN JACKSON GORE, of Baltimore, Md.

SAMUEL RICHARD HALL, of Baltimore, Md.

WILLIAM DOUGLAS HAMILTON, of Baltimore, Md.

MARGARET CLARK HISLE, of Baltimore, Md.

GEROLD IRVIN HOLLEN, of Baltimore, Md.

OLGA KLEIN HUTCHINS, of Baltimore, Md.

ARTHUR LEE JAMES, of New York, N. Y.

HOWARD FRANKLIN KNIPP, Jr., of Baltimore, Md.

KENNETH WHITE LELAND, of Baltimore, Md.

WILBERT EDWIN LOCKLIN, of Riderwood, Md.

WILLIAM KENNETH MCCARDELL, of Baltimore, Md.

JOAN BURNHAM MCGLANNAN, of Baltimore, Md.

JAMES TYLER MCRAE, of Baltimore, Md.

ROBERT GLENN MELVIN, of Baltimore, Md.

SARA SIMPSON MEREDITH, of Baltimore, Md.

WAYNE WRIGHTSON MIESSNER, of Baltimore, Md.

RICHARD LYON OGLE, of Baltimore, Md.

WILLIAM MANN OWEN, of Baltimore, Md.

RUTH HAY PRITCHARD, of Bel Air, Md.

DONALD FREDERICK RENO, of Severna Park, Md.

CARLOTTA S. RIPKE, of Baltimore, Md.

NANCY LEE ROBINSON, of Baltimore, Md.

FUMIO ALFRED SAITO, of Baltimore, Md.

HAROLD GRIFFITH SCHMICKLEY, Jr., of Baltimore, Md.

EDWIN WILLIAM SCRIBA, of Baltimore, Md.

KATIE MANARAS SFEKAS, of Baltimore, Md.

BERNARD WILLIAM STEINDLE, of Baltimore, Md.

LEWIS WINFIELD STEPHENS, of McDonogh, Md.

FRANCIS JOSEPH SWEENEY, of Baltimore, Md.

BERNARD BENJAMIN THIMAN, of Baltimore, Md.

KATHRYN HENDERSON TOWSON, of Baltimore, Md.

VERNON ROY UZZELL, of Joppa, Md.

MALCOLM DAVIS VOELCKER, of Baltimore, Md.

ROBERT HENRY SMITH WEIGEL, Jr., of Baltimore, Md.

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GRADUATING WITH HONORS

JOHN WILLIAM GORE, JR.

KATHRYN HENDERSON TOWSON

BACHELORS OF SCIENCE IN NURSING

NANCY MAE ANDREWS, of Blacksburg, Va.
BETTY IRENE AVERY, of Wenatchee, Wash.
MARTHA HILDA BARDENHAGEN, of Grass Valley, Ore.
LOUVA JEAN BARTON, of Minneapolis, Minn.
PATRICIA ORCUTT BERRY, of Washington, Iowa
REBECCA WARREN CARROLL, of Machias, Me.
BARBARA ANN COLLINS, of Miami, Okla.
CHARLOTTE MARIE DE OGBURN, of Miami, Fla.
MARY HELEN FARNUNG, of Baltimore, Md.
MARÉE AUBERT FLEMING, of Ravenswood, W. Va.
PATRICIA ANN GALLOWAY, of Mount Vernon, N. Y.
MARY FRANCES HAYDUK, of Elbert, W. Va.
NANCY ELIZABETH HEIM, of Montoursville, Pa.
MARJORIE HEINBOCKEL, of Brooklyn, N. Y.

JACQUELINE MARY ANN LIECHTY, of Columbia, S. C.
BARBARA ANN LONG, of Covina, Calif.
LORETTA LEE MARTIN, of Baltimore, Md.
JUDITH ANN MCLEAN, of Sayreville, N. J.
PATRICIA J. THOMPSON PEARSON, of Clearwater, Fla.
MARGARET A. RAINEY, of North Wales, Pa.
MARGARET ELLEN RODGERS, of Baltimore, Md.
DOROTHY JOAN SHEFFER, of Portland, Ind.
JOAN CAROL LLOYD SHORB, of Washington, D. C.
FLORENCE EMMA SMITH, of DeLong Springs, Fla.
JANICE WINIFRED SMITH, of Falls Church, Va.
NORALEE H. THOMAS, of Milford, O.
KATHRYN ANN PITZER TRITES, of Willowick, O.
ELIZABETH JEAN WALLACE, of Port Arthur, Tex.

(28)

BACHELORS OF SCIENCE IN ENGINEERING

CHARLES ELLSWORTH ALEXANDER, of Baltimore, Md.
CHARLES EDWARD BAKER, of Baltimore, Md.
JOSEPH GEORGE BARNICKEL, of Baltimore, Md.
BERNARD BOTWIN BELLIT, of Baltimore, Md.
ALFRED LEONARD BERTLING, of Baltimore, Md.
GILBERT DONALD BULLOCK, of Baltimore, Md.
LEONARD DEWEY BURGESS, JR., of Baltimore, Md.
WILLIAM CAMPAS, of Baltimore, Md.
ELKINS WILLIAM DAHLE, JR., of Baltimore, Md.
ROLAND JOSEPH DAVIS, of Baltimore, Md.
CHARLES WILLIAM EINOLF, of Poughkeepsie, N. Y.
EDWARD MILTON FRITZ, of Baltimore, Md.
JOSEPH WILLIAM GIORDANETTI, of Baltimore, Md.
HOWARD RUSSELL GRANDER, JR., of Baltimore, Md.
JOHN RICHARD GRAY, of Baltimore, Md.
JOSEPH JOHN HEIDELMAIER, of Baltimore, Md.
EDWIN MAURICE HENRY, JR., of Cambridge, Md.
ROWLAND KENNETH HILL, of Baltimore, Md.
ELLIOTT ROBERT HUDGINS, of Baltimore, Md.
HARRY HANS KAUFMAN, of Baltimore, Md.

HEINZ ALBERT MARTIN KOEHLER, of Baltimore, Md.
MELVIN JOHN KOUTEK, of Baltimore, Md.
JEAN EDWARD MACKENZIE, of Baltimore, Md.
HARRY FRANKLIN MEYERS, of Baltimore, Md.
JOHN EDWARD MILLER, of Baltimore, Md.
WILLIAM MILTON MILLER, JR., of Baltimore, Md.
HENRY AUGUST MINCH, of Baltimore, Md.
GEORGE ALEXANDER MOHR, JR., of Baltimore, Md.
VERNON MACEY MORRIS, of Baltimore, Md.
JOHN CHRISTOPHER NOLEN, of Baltimore, Md.
EDWARD PAUL PETRASKA, of Baltimore, Md.
CLARENCE MORGAN PULLIN, JR., of Baltimore, Md.
JOHN BERNARD RASSA, of Baltimore, Md.
BERNARD JOSEPH RYNARZEWSKI, of Baltimore, Md.
HARRY ADOLPH SCOPINICH, of Baltimore, Md.
CHARLES HENRY UNDERWOOD, of Baltimore, Md.
VERNON HAMILTON WALKER, of Baltimore, Md.
NOEL ROBINSON WHITE, JR., of Annapolis, Md.
RAYMOND EDWARD YRTTIMAA, of Baltimore, Md.
JOHN MILTON ZORN, of Baltimore, Md.

(40)

GRADUATING WITH HONORS

WILLIAM CAMPAS
HARRY HANS KAUFMAN
HARRY FRANKLIN MEYERS

WILLIAM MILTON MILLER, JR.
JOHN CHRISTOPHER NOLEN

MASTERS OF SCIENCE IN ENGINEERING

IN MCCOY COLLEGE

WITH TITLES OF ESSAYS

- RICHARD ANTHONY ABATE, of Baltimore, Md., B. S. Yale University, 1952. Electrical Engineering.
Techniques for the Analysis of Non-Linear Systems with Application to Servomechanisms.
- DENIS BOLTON, of London, England, B. S. Rugby College of Technology and Arts, 1946. Electrical Engineering.
Magnetic Amplifier Control of Motors.
- EDWARD JOSEPH CHRZANOWSKI, of Linthicum, Md., B. E. The Johns Hopkins University, 1952. Electrical Engineering.
Theory and Practice of Radiolocation.
- JAMES GLEN HOLMAN, of Baltimore, Md., B. S. E. E. Kansas State College, 1950; B. S. in Bus. Adm., 1950. Electrical Engineering.
The Pulse Response of a Frequency Discriminator.
- AUGUST WILLIAM MEYER, of Baltimore, Md., B. S. in Radio Engr. Tri-State College, 1950. Electrical Engineering.
Some Characteristics of a Serrodyned Traveling Wave Tube.
- WALTER PETER SOBOLESKI, of Linthicum, Md., B. E. E. Manhattan College, 1952. Electrical Engineering.
Control System Using a Combination of Feedback and Feedforward Control.
- RICHARD KENNETH THOMAS, of Baltimore, Md., A. B. New York University, 1935; B. E. E., 1948. Electrical Engineering.
Radiation Patterns of Yagi Antennas.
- CHARLES RAPHAEL WILLIAMS, of Baltimore, Md., B. S. The Johns Hopkins University, 1950. Electrical Engineering.
The Effect of Weather on Electric System Load. (8)

MASTERS OF EDUCATION

- DELORES MATILDA FISHER BADEN, of Baltimore, Md., B. S. Coppin State Teachers College, 1952.
- ALEXANDER HAMILTON BISHOP, III, of Baltimore, Md., A. B. The Johns Hopkins University, 1950.
- JASON WISHARD BRUNK, JR., of Baltimore, Md., B. S. Loyola College, 1950.
- BETTY SHERMAN CHURCHMAN, of Baltimore, Md., A. B. Maryland College for Women, 1945.
- SHIRLEY V. CONNER, of Baltimore, Md., State Teachers College, Towson, Md., 1944.
- THELMA FRANCES CRIST, of Cumberland, Md., B. S. State Teachers College, Frostburg, Md., 1941.
- ELMER CRANSTON DIZE, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1952.
- ROBERT GORDON COOPER EADS, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1950.
- LLOYD FRANKLIN ELMER, of Edgewood, Md., B. S. in Ed. State Teachers College, Cortland, N. Y., 1950.
- GRASON EDWARD FOWBLE, of Cockeysville, Md., B. S. State Teachers College, Towson, Md., 1953.
- MARGARET CORCORAN GALLAGHER, of Catonsville, Md., A. B. College of Notre Dame of Maryland, 1948.
- RICHARD ZIEGLER HARTRANFT, of Glen Rock, Pa., A. B. Ursinus College, 1941.
- CHARLES LEONARD HAYES, JR., of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1954.
- IDA MAE SHIPE JOHNSON, of Baltimore, Md., B. S. The Johns Hopkins University, 1954.
- VASHTI MINOR JUDE, of Baltimore, Md., B. S. Morgan State College, 1953.
- CHESTER LAKE KISER, of Baltimore, Md., B. S. The Johns Hopkins University, 1954.
- IVOR KRAFT, of Baltimore, Md.
- SARA NELLE MCCAULEY, of Jonesboro, Ark., B. A. Texas Christian University, 1949.
- MINNIE REGINA MENCKE, of Baltimore, Md., B. S. The Johns Hopkins University, 1932.
- VIRGINIA PETTIGREW REDD, of Baltimore, Md., A. B., Virginia State College, 1952.
- RICHARD PAUL SASS, of Baltimore, Md., B. S. in Ed. State Teachers College, Slippery Rock, Pa., 1950.

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| ROSALIE CLICK SHOBE, of Cumberland, Md., B. S. The Johns Hopkins University, 1940. | GRACE MORTON WINCKLER, of Baltimore, Md., A. B. Morgan State College, 1954. |
| ROSEMARIE WALLACE, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1951. | BERNARD YAFFE, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1954. |

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CERTIFICATES OF ADVANCED STUDY IN EDUCATION

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|---|--|
| JEROME BOBER, of Baltimore, Md., B. S. The Johns Hopkins University, 1950; M. Ed., 1953. | DUDLEY MARVIN SHOEMAKER, of Baltimore, Md., Ph. B. Loyola College, 1948; M. A. The Johns Hopkins University, 1951. |
| LEON JESSE KLOMPUS, of Baltimore, Md., B. S. State Teachers College, Frostburg, Md., 1941; M. A. Columbia University, 1950. | THEODORE ALEXANDER WORONKA, of Baltimore, Md., B. S. The Johns Hopkins University, 1948; M. A., 1952. |
| PAULINE WILSON PAYSOUR, of Baltimore, Md., B. S. Morgan State College, 1949; M. Ed. Loyola College, 1954. | |

(5)

MASTERS OF SCIENCE IN HYGIENE

WITH TITLE OF THESIS

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|--|---|
| PETER BAGLIO, of Brooklyn, N. Y., B. B. A. City College of New York, 1952. Public Health Administration (Hospital Administration).
Competitive Examinations for the Selection of Hospital Administrators. | SHEILA NOMITA DEV JOARDAR, of Lucknow, India, B. S. Michigan State Normal College, 1949; M. S. in Zoology University of Michigan, 1950; M. S. in Med. Tech. Wayne University, 1952. Environmental Medicine.
The Effects of Temperature and Dehydration on the Susceptibility of Animals to Lead Poisoning. |
| TODD MEARL FRAZIER, of Baltimore, Md., A. B. Kenyon College, 1949. Biostatistics.
Estimation of Need for Chronic Disease Services. | SARA PRUDOVSKY, of Tel Aviv, Israel, B. A. University of California at Los Angeles, 1954. Microbiology.
Studies on the Prophylaxis of Tetanus. |
| MARY MARTHA HAWRISIAK, of Baltimore, Md., B. S. University of Maryland, 1951. Microbiology.
Studies on the Participation of Complement in Passive Cutaneous Anaphylaxis. | MARLIN SPIKE WERNER, of St. Louis, Mo., A. B. University of Missouri, 1950. Environmental Medicine (Audiology and Speech).
Vocal Rate as a Measure of Acoustic Information in Selected Frequency Passes with Delayed Sidetone. |
| MARJORIE THERESE WILBER, of Lisle, N. Y., B. S. Cornell University, 1951. Microbiology.
Studies of the Absorption Spectrum of Yeast Ribonucleic Acid. | |

(7)

DOCTORS OF SCIENCE IN HYGIENE

WITH TITLES OF DISSERTATIONS

- GLENN EMIL BARTSCH, of Rapidan, Minn., B. S. University of Minnesota, 1950; M. S., 1951. Biostatistics.
Confidence Intervals for the Means of Non-Normal Populations.
- RITA BELLE EISENBERG, of Brooklyn, N. Y., A. B. Brooklyn College, 1941; M. A. Columbia University, 1946. Environmental Medicine (Audiology and Speech).
A Study of the Duration and Intensity of the Auditory Threshold.
- JOHN THOMAS FALES, of Baltimore, Md., A. B. The Johns Hopkins University, 1950. Environmental Medicine.
Dependency of Oxygen Consumption of Skeletal Muscle upon the Number of Stimuli during Work in the Dog.
- GORDON HENLEY JOSIE, of Ottawa, Canada, B. Sc. University of Manitoba, 1932; M. Sc., 1935; M. P. H. The Johns Hopkins University, 1951. Biostatistics.
Sampling Variation as a Factor in Morbidity Survey Design.
- ROMEO JOHN MANSUETI, of Baltimore, Md., B. S. University of Maryland, 1948; M. S., 1950. Pathobiology (Vertebrate Ecology).
Movements, Reproduction and Mortality of the White Perch in the Patuxent River Estuary, Maryland.
- LIONEL GUSTAVE WARREN, of Washington, D. C., A. B. Syracuse University, 1948; A. M., 1953. Pathobiology.
In vitro Studies on the Metabolism of *Trypanosoma cruzi*, Chagas, 1909.

(6)

MASTERS OF PUBLIC HEALTH

- LOU ALICE ARBOGAST, of Indianapolis, Ind., A. B. Indiana University, 1942.
- RENE JULIAN BARU, of Montevideo, Uruguay, M. D. University of Uruguay, 1933.
- ADA MAE BOOKMAN, of Richmond, Va., B. S. George Peabody Teachers College, 1951.
- SIMON BTESH, of Jerusalem, Israel, M. D. American University of Beirut, 1932.
- WILLIAM LARKIN BUNCH, JR., U. S. Public Health Service, B. S. University of Arkansas, 1936; M. D., 1942.
- EDWIN STANLEY BUSCH, of Camden, N. J., M. D. Tufts University, 1949.
- IAN DAN CARTER, of Adelaide, Australia, M. B. B. S. University of Adelaide, 1952; D. P. H. Sydney University, 1955; D. T. M. & H. Liverpool University, England, 1956.
- HOWARD EDWARD CHANEY, of Baltimore, Md., B. S. The Johns Hopkins University, 1955.
- FRANCES KENT CONSTANTINOU, of Baltimore, Md., B. A. Hunter College, 1940; B. S. Cornell University, 1943.
- IAN NORWOOD JULIUS EGGELING, U. S. Air Force, M. B., Ch. B. University of Edinburgh, 1939.
- BADIH NIMER FIDAOU, of Tripoli, Lebanon, M. D. French Medical University of Beirut, 1945.
- MERCEDES MARIE FISCHER, U. S. Army, B. S. University of Minnesota, 1947.
- NOEL LESTER FREEMAN, U. S. Navy, B. A. University of Southern California, 1947; M. S., 1948.
- EVA PEYTON GAINES, of Silver Spring, Md., B. S. Ed. Indiana University, 1943.
- FRANCIS JOSEPH GOLDSMITH, of Baltimore, Md., Ph. B. Loyola College, 1948; LL. B. University of Baltimore, 1951.
- VENKATARAMAN HARIHARAN, of Madras, India, M. B. B. S. Madras University, 1939; B. S. Sc., 1941.
- LI-CHAU HONG, of Taipei, Taiwan, M. D. National Changchun University, 1945.
- CARL EDWARD HOPKINS, of Portland, Ore., A. B. Dartmouth College, 1933; A. M. Harvard University, 1935; Ph. D., 1948.
- JOSEPH JAMES JOHN, U. S. Air Force, B. S. Philadelphia College of Pharmacy and Science, 1941; M. D. Jefferson Medical College, 1950.
- YOSHINORI KANEKO, of Tokyo, Japan, M. D. Tokyo University, 1942.
- SHARDA KASLIWAL, of Indore, India, M. B. B. S. Madras University, 1950.
- SOHAN LAL KHOSLA, of Patiala, India, M. B. B. S. Punjab University, 1950.
- HELEN LOUISE KOETHER, of Severna Park, Md., B. S. (P. H. N.) Columbia University, 1949.

- BROWNE CORMELL LUCAS, of Baltimore, Md., B. S. C. E. Virginia Polytechnic Institute, 1940.
- STAVROS APOSTOLOS MALAFATOPOULOS, of Athens, Greece, M. D. University of Salonika, 1951.
- DOUGLAS FORD MOE, U. S. Air Force, D. V. M. Michigan State University, 1947.
- ANTHONY J. MOSCHONAS, of Athens, Greece, M. D. University of Athens, 1938; M. P. H. School of Hygiene (Athens), 1952.
- JOHN STORTS NEILL, of Bradenton, Fla., M. D., University of Louisville, 1946.
- STEPHEN NOWELSKI, of Philadelphia, Pa., B. S. Temple University, 1951.
- PEARL DEBORAH PARKER, of Atlanta, Ga., B. A. Hunter College, 1938; M. A. New York University, 1946.
- SADANANDA PATTANAYAK, of Orissa, India, M. B. B. S. Utkal University, 1950; D. T. M. School of Tropical Medicine, Calcutta, 1951.
- MICHAEL JAMES PESCOR, U. S. Public Health Service, B. A. University of Wisconsin, 1925; M. D., 1930.
- JOHN ROBERT PFROMMER, U. S. Air Force, B. S. University of Minnesota, 1946; M. B., 1948; M. D., 1949.
- ALEJANDRO CRUZ REYES, of Quezon City, Philippines, B. S. National University, Philippines, 1939; M. D. University of Philippines, 1945.
- RAYMOND SELTSE, of Silver Spring, Md., M. D. Boston University, 1947.
- KEERTI VANDRAVANDAS SHAH, of Poona, India, M. B. B. S. Poona University, 1951.
- USHA KEERTI SHAH, of Poona India, M. B. B. S. Poona University, 1952.
- YAG NATH SHARMA, of Kathmandu, Nepal, M. B. B. S. Bihar University, 1952.
- FRANK JAMES SILVA, of Rehoboth Beach, Del., B. S. University of Delaware, 1952; M. S., 1953.
- GEORGE BRYAN SMITH, JR., U. S. Air Force, B. A. Duke University, 1947; M. D., 1952.
- WILDA LOUISE SNYDER, of Baltimore, Md., B. S. University of Maryland, 1948.
- ALFRED ROBERT STUMPE, U. S. Air Force, B. S. Carson-Newman College, 1946; M. D. Cornell University, 1949.
- BOON SUVARNASARA, of Bangkok, Thailand, M. D. Chulalongkara University, 1930.
- ROBERT MICHAEL THORNER, of Jacksonville, Fla., B. S. in B. A. Boston University, 1952; M. B. A., 1954.
- AMANDA VERGARA VALENZUELA, of Quezon City, Philippines, M. D. University of Philippines, 1947.
- VICTOR KEISTUTIS VILCINSKAS, of Buenos Aires, Argentina, M. D. Buenos Aires University, 1951.
- LO WANG, of Taipei, Taiwan, M. D. Manchuria Medical College, 1931.
- EDWIN HUDSON WEST, of Lyndon, Ky., M. D. Tulane University, 1937.
- NED HAROLD WIEBENGA, U. S. Navy, M. D. Tufts College, 1949.
- JANE WILCOX, U. S. Public Health Service, B. A. Barnard College, 1936; M. N. Yale University, School of Nursing, 1939.
- STANLEY FAUSST YOLLES, of Silver Spring, Md., A. B. Brooklyn College, 1939; A. M. Harvard University, 1940; M. D. New York University, 1950.
- DUK JIN YUN, of Seoul, Korea, M. D. Korean Christian University, 1944.

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DOCTORS OF PUBLIC HEALTH

WITH TITLES OF THESES

- PHILIP RAINS BECKJORD, U. S. Army, B. S. University of Minnesota, 1935; M. B., 1937; M. D., 1938; M. P. II., 1949. Epidemiology.
The Epidemiology of Tuberculosis in the U. S. Navy and Marine Corps, 1953-1954.
- MARIANO GARCIA YOGORE, JR., of Quezon City, Philippines, M. D. University of Philippines, 1945; M. P. H. The Johns Hopkins University, 1948. Pathobiology.
Studies on Paragonimiasis in the Philippines.

(2)

DOCTORS OF MEDICINE

- JOHN E. W. BAAY, of Mexico D. F., Mexico, B. S. E. Princeton University, 1953.
- ROBERT PURDY BLAND, JR., of Sumter, S. C., S. B. University of South Carolina, 1953.
- JOHN KERSH BOITNOTT, of Bridgewater, Va., A. B. Bridgewater College, 1953.
- NATHANIEL RICHARDSON BRONSON, II, of Bel Air, Md., S. B. Yale University, 1953.
- EUGENE ALAN BROWNE, of Brooklyn, N. Y., S. B. University of Florida, 1953.
- LEWIS TOLMAN BYRON, of Mechanicsburg, Pa., A. B. Princeton University, 1953.
- THOMAS TAO-YUAN CHEN, of Indianapolis, Ind., A. B. De Pauw University, 1953.
- JAMES RICHARD CREPS, of Baltimore, Md., S. B. Juniata College, 1952.
- JAMES LAWRENCE ERWIN, of Baltimore, Md., A. B. The Johns Hopkins University, 1953.
- JEAN BRYCE FELTY, of West Hartford, Conn., A. B. Sweet Briar College, 1953.
- WHITMER BENNETT FIROR, JR., of Baltimore, Md., A. B. The Johns Hopkins University, 1953.
- WILLIAM N. FISHBEIN, of Baltimore, Md., A. B., The Johns Hopkins University, 1953.
- ERIC WALTER FONKALSRUD, of Seattle, Wash., A. B. University of Washington, 1953.
- JOHN WILKE FREESE, of Fort Worth, Tex., A. B., Williams College, 1952.
- JAMES LAWRENCE FROST, of Baltimore, Md., A. B. Princeton University, 1953.
- FRED SMITH GACHET, JR., of Lakeland, Fla., A. B. Duke University, 1953.
- JAMES RAIFORD GANTT, of Texarkana, Tex., A. B. Baylor University, 1953.
- PETER GOLDMAN, of New York, N. Y., B. E. Cornell University, 1952; A. M. Harvard University, 1953.
- PETER HAIRSTON, of Raleigh, N. C., S. B. Davidson College, 1953.
- CRUZ M. HERNANDEZ, of Superior, Ariz., S. B. University of Arizona, 1953.
- AUSTIN ALEXIS HERR, JR., of Washington, D. C., S. B. Georgetown University, 1953.
- WILLIAM DANIEL HILLIS, of Bartlesville, Okla., S. B. Baylor University, 1953.
- JOHN EUGENE HOOPES, of Houston, Tex., A. B. Rice Institute, 1953.
- MARIAN TING YING HSUEH, of Foochow, China, A. B. Hanover College, 1953.
- ROBERT SHELBY HUGHES, of Clinton, Mo., A. B. Central College, 1953.
- WILLIS RIGGS KEENE, of Woodbine, Ga., A. B. Emory University, 1953.
- EVI KESKKÜLA, of Midland, Mich., A. B. Shorter College, 1953.
- EXALL LAW KIMBRO, JR., of Monticello, Ark., S. B. Arkansas Agricultural and Mechanical College, 1953.
- EPHRAIM YALE LEVIN, of Baltimore, Md., A. B. and A. M. The Johns Hopkins University, 1953.
- GEORGE HAROLD LOBLEY, of Montague City, Mass., A. B. Yale University, 1953.
- EDWARD MAKARY LOWICKI, of Wilmington, Del., A. B. University of Delaware, 1953.
- ZOLTON JOHN LUCAS, of Bridgeport, Conn., B. S. and M. S. Massachusetts Institute of Technology, 1953.
- DON AUBREY MACCUBBIN, of Baltimore, Md., A. B. The Johns Hopkins University, 1953.
- SIMEON MARGOLIS, of Johnstown, Pa., A. B. The Johns Hopkins University, 1953.
- EVERETT WILLIAM MAYNERT, of Providence, R. I., S. B. Brown University, 1941; Ph. D. University of Illinois, 1945.
- EDMUND FRANCIS McNALLY, of Brooklyn, N. Y., A. B. New York University, 1953.
- CHARLES EDMUND MENGEL, of Allentown, Pa., A. B. Lafayette College, 1953.
- JOHN GASTON MERSELIS, JR., of South Orange, N. J., A. B. Williams College, 1953.
- ALBERT SAMUEL MILDVAN, of Philadelphia, Pa., A. B. University of Pennsylvania, 1953.
- FRANCIS DALLOS MILLIGAN, of Victoria, Canada, S. B. University of Portland, 1953.
- ROBERT EMMETT MORAN, JR., of Washington, D. C., A. B. George Washington University, 1952.
- RICHARD WILLIAM NEWCOMB, of Santiago, Calif., A. B. University of California at Berkeley, 1953.
- WILLIAM PRIN, of Turtle Creek, Pa., A. B. The Johns Hopkins University, 1953.
- GORDON HENRY PURYEAR, JR., of Towson, Md., A. B. The Johns Hopkins University, 1953.

- HENRY JEFFERSON REDD, JR., of Tallahassee, Fla., A. B. Florida State University, 1953.
- MACCALLUM RIENHOFF, of Baltimore, Md., A. B. Yale University, 1953.
- ELLIOTT B. ROBBINS, of Mount Vernon, N. Y., A. B. New York University, 1953.
- ESTHER K. ROBBINS, of Brooklyn, N. Y., A. B. New York University, 1953.
- ABE DAVID ROTH, of Indianapolis, Ind., A. B. Indiana University, 1954.
- KARL A. SCHELLENBERG, of Arlington, Va., S. B. College of William and Mary, 1953.
- JAMES ANTHONY SCHOETTLER, of Madera, Calif., A. B. Fresno State College, 1953.
- THOMAS MURPHY SCRUGGS, of Richmond Heights, Mo., A. B. Washington University, 1953.
- GORDON CRAIG SHARP, of Mount Pleasant, Mich., A. B. University of Michigan, 1953.
- JOHN HOWARD SIEGEL, of Baltimore, Md., A. B. Cornell University, 1953.
- JACK HENRY SILVEIRA, of Fresno, Calif., A. B. Fresno State College, 1953.
- RAYMOND PETER SRISIC, of Pittsburgh, Pa., S. B. University of Notre Dame, 1948; M. S. University of Pittsburgh, 1949.
- PAUL STEIN, of Cochabamba, Bolivia, A. B. University of Texas, 1953.
- JANE CRANE STRAUGHN, of Wilmington, Del., S. B. University of Delaware, 1953.
- ADAM FRANCIS PATRICK SZCZYPINSKI, of Baltimore, Md., A. B. The Johns Hopkins University, 1953.
- JOHN ANWYL TUCKER, of Cynwyd, Pa., A. B. University of Pennsylvania, 1953.
- PAUL HUTCHINS WARD, of St. Elmo, Ill., A. B. Anderson College, 1953.
- DAVID ROBERT WEAKLEY, of Dallas, Tex., S. B. Southern Methodist University, 1953.
- ETHAN LEO WELCH, of Hornell, N. Y., A. B. Harvard College, 1953.
- GILBERT JAY WISE, of North Bergen, N. J., A. B. The Johns Hopkins University, 1953.
- WALTER LEWIS YARBOROUGH, of Darlington, S. C., S. B. The Citadel, 1953.
- ADOLPH JOSEPH YATES, of Butler, Pa., A. B. The Johns Hopkins University, 1953.
- HENRY YEAGER, JR., of Dallas, Tex., S. B. Southern Methodist University, 1953.

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BORDEN RESEARCH AWARD

WILLIS RIGGS KEENE

MASTERS OF ARTS

IN THE SCHOOL OF ADVANCED INTERNATIONAL STUDIES

- ABRAHAM ASHKENASI, of New York, N. Y., B. A. Columbia University, 1955.
- JOHN HERBERT BADGLEY, of Missoula, Mont., B. A. Montana State University, 1952.
- EDMUND ALEXANDER BATOR, of Doraville, Ga., A. B. Oglethorpe University, 1953.
- EMMA BERNARDON, of East Elmhurst, N. Y., B. A. Hunter College, 1955.
- MILDRED CAROLINE BIGELOW, of Englewood, N. J., A. B. University of Rochester, 1955.
- MICHAEL PHILIP BOERNER, of Silver Spring, Md., A. B. Oberlin College, 1956.
- MARSHALL HOWARD BORD, of Brooklyn, N. Y., B. A. Alfred University, 1955.
- SANFORD LOUIS CHERNOFF, of New Haven, Conn., B. A. Wesleyan University, 1955.
- PETER DALTON CONSTABLE, of Cazenovia, N. Y., A. B. Hamilton College, 1953.
- WILLIAM ALLISON DOUGLAS, of Seattle, Wash., B. A. University of Washington, 1955.
- KENNETH HERBERT FARIS, of Naramata, Canada, B. A. University of British Columbia, 1954.
- ROBERT JOSEPH FELDMAN, of Bellerose, L. I., N. Y., A. B. George Washington University, 1955.

- WALTER GORDON FISCHER, JR., of Old Westbury, L. I., N. Y., B. A. Yale College, 1952.
- PHILIP GARY FUTTERMAN, of New York, N. Y., B. A. Ohio State University, 1955.
- EVA LOTTE HAAS, of Berkeley, Calif., B. A. Pomona College, 1955.
- DONALD CEDRIC HENDERSON, JR., of Burlington, Vt., B. A. University of Vermont, 1955.
- L. ALTON JENKENS, of Lynn, Mass., B. A. Harvard University, 1952.
- OLEG JERSCHKOWSKY, of Utica, N. Y., B. A. Syracuse University, 1955.
- ALLEN SHERRARD JOHNSON, of Princeton, N. J., A. B. Princeton University, 1955.
- HENRY PRINCE JOHNSON, of Manchester, Conn., B. A. Harvard College, 1955.
- DAVID ADOLF KORN, of Joplin, Mo., Diploma, Institute of Political Studies, Paris, 1956.
- ANNE LE ROY LADURIE, of Paris, France, Diploma, Institute of Political Studies, Paris, 1955.
- LILLO KNOFFMACHER LANG, of Los Angeles, Calif., B. A. Pomona College, 1955.
- KENNETH ZACHARIAS LIATSOS, of Springfield, Mass., B. A. Bates College, 1953.
- LUIGI MANCINI, of Rome, Italy, Doctor in Law, University of Rome, 1953.
- JEAN HELEN McEWEN, of Clinton, N. Y., B. A. Wellesley College, 1954.
- WILFRIED MEHRING, of Hanover, Germany, B. A. The Principia College, 1955.
- ABE JOSEPH MOSES, of Springfield, Mass., B. A. Amherst College, 1955.
- BEAUVEAU BORIE NALLE, of Whitmarsh, Pa., B. A. University of Virginia, 1949.
- KARL ROBERT NILSSON, of Trenton, N. J., B. S. Temple University, 1947.
- RONALD DEWAYNE PALMER, of Washington, D. C., B. A. Howard University, 1954.
- ROBERT MICHAEL RODES, of Lexington, Ky., A. B. University of Kentucky, 1955.
- CHARLES JEROME ROSE, of New Rochelle, N. Y., B. A. Hamilton College, 1955.
- WHITNEY SEYMOUR SLATER, of Rocky River, O., A. B. Oberlin College, 1955.
- MARY JUNE WALL, of Tazewell, Va., B. A. and B. S. in Ed. Radford College, 1953.

(35)

DOCTOR OF PHILOSOPHY

IN THE SCHOOL OF ADVANCED INTERNATIONAL STUDIES

WITH TITLE OF DISSERTATION

LAURENCE EVANS, of Washington, D. C., B. A. University of Maine, 1951.

The United States Policy in the Syrian Mandate, 1917-1922.

(1)

MASTERS OF ARTS

WITH TITLES OF ESSAYS

- SÉRGIO ESTANISLAU DO AMARAL, of São Paulo, Brazil, B. S. University of São Paulo, 1950. Geology.
- CHARLES WILLIAM ANDERSON, of Mount Prospect, Ill., A. B. Grinnell College, 1955. Political Science.
The Liberal-Radical Parties of Northwestern South America: A Comparative Analysis.
- GEORGE MINOR ANDERSON, of Rockville, Md., A. B. Haverford College, 1956. Writing.
Half and Half—Six Stories.
- JOSEPH WILLIAM BERKOW, of Baltimore, Md. Biological Sciences.
A Study of Adenine Deaminase from *Torulopsis utilis*.
- PETER EDMUND BERTEAU, of London, England, B. S. Queen Mary College, University of London, 1951. Chemistry.
- JOAN SHANNON BOWERMAN, of Baltimore, Md., A. B. Mount Saint Agnes College, 1955. German.
- PETER ELLIOTT BURDE, of Belle Harbor, N. Y., A. B. Hobart College, 1950. Philosophy.
R. G. Collingwood's Historicist Conception of Metaphysics.
- SALVATORE JAMES CANTOLINO, of Brooklyn, N. Y. Biological Sciences.
Cytrophotometric Analysis on Knobs in Maize.
- GERALD ERNEST CARBONE, of Union City, N. J., B. S. Fairleigh Dickinson College, 1954. Physics.
A Verification of the Klein-Nishina Cross Section Formula and the Compton Energy Shift by Measurement of Scattered Gamma Radiation in Metals.
- DARRYL CARTER, of Baltimore, Md. Biological Sciences.
Glyceraldehyde Phosphate Dehydrogenase and Adolase Activities in the Developing Chick Heart.
- A. VIJAYA RAGHAVA CHAR, of Mysore City, India, B. S. Maharaja's College, 1946; A. B., 1948; M. A., 1949. Political Economy.
Underemployment in Rural India.
- ARTHUR CHARLES CHAUFUREAUX, of Glendale, Calif., A. B. The Johns Hopkins University, 1955. International Studies.
Aspects of Russia's Expansion across North Asia, with Special Reference to the Roles of Muravyov and Witte.
- GUY-PIERRE COUTURIER, C. S. C., of Montreal, Canada, A. B. College of Saint-Laurent, 1952. Oriental Seminary.
- PATRICIA ROOT COVER, of York, Pa., A. B. Goucher College, 1953. Political Science.
Baltimore's Air Transportation Problem.
- ALBERT EDWARD COWDREY, of New Orleans, La., A. B. Tulane University, 1956. History.
Huey Long in National Politics.
- ELLIOT MYRON CRAMER, of Hartford, Conn., B. S. Massachusetts Institute of Technology, 1955. Psychology.
The Creation of Pitch through Binaural Interaction.
- LYNN CROOK, of St. George, S. C., B. S. Furman University, 1955. Chemistry.
- EUGENE DICERO, of New York, N. Y. Biological Sciences.
Reduction in the Feulgen Staining of Maize Nuclei by Cold Shock, and the Effect of Knob Number on this Phenomenon.
- JOSEPH BRUN DIGIORGIO, of Baltimore, Md., B. E. The Johns Hopkins University, 1954. Chemistry.
- FILLMORE EVERETT DRYDEN, JR., of Baltimore, Md., A. B. Washington College, 1951. Writing.
The Aesthetic Concepts of Benedetto Croce.
- EDITH HOLLINGER FELLEBAUM, of Baltimore, Md., A. B. Gettysburg College, 1921. Education.
Augustine Concerning Education.
- GERALD JOSEPH FLOOD, of New Britain Conn., A. B. Trinity College, 1956. Education.
Patterns of Curriculum in Teacher Education.
- OTTO LEHN FRANKE, of Baltimore, Md., A. B. Haverford College, 1955. Geology.
- RICHARD STEMPLE FULLER, of Baltimore, Md., A. B. Haverford College, 1955. Writing.
A Novel.
- BENNETT MERRILL GOLD, of Baltimore, Md., A. B. The Johns Hopkins University, 1953. Writing.
An Examination of Women as Characters in the Novels of Henry James.
- ADOLPH GEORGE GOLS, of Philadelphia, Pa., A. B. Upsala College, 1954. Political Economy.
United States Farm Surpluses as Aid to Economic Development.
- KARL FIELD HARSHBARGER, of Iowa City, Iowa, B. S. University of Oregon, 1954. Writing.
The Trip.
- WILLIAM RANDOLPH HERMAN, of Washington, D. C., A. B. Rutgers University, 1950; A. M. University of Illinois, 1951. English.
- GERALD ALAN HOFKIN, of Baltimore, Md. Biological Sciences.
Historical Survey and Laboratory Investigation of the Golgi Complex.

- LEONARD MARTIN HOROWITZ, of Baltimore, Md. Psychology.
An Investigation of the Relationship between Motivational Anxiety-Indicative Questionnaire Items and Performance in the Experimental Situation.
- ERLEND ERICSSON JACOBSEN, of Baltimore, Md., A. B. Dartmouth College, 1956. Writing.
Poems and Short Stories.
- RUSSELL LOWELL KARL, of Pittsburgh, Pa., A. B. Denison University, 1949. Physics.
A Method for Measuring the Pressure of Condensable Gases by Means of a McLeod Gauge.
- PETER HERMON LEFFMAN, of Baltimore, Md., A. B. The Johns Hopkins University, 1956. Romance Languages.
- LOUISE BRANTLY MACHEN, of Baltimore, Md., A. B. Vassar College, 1938; B. D. Union Theological Seminary, 1942. Romance Languages.
- GEORGE WINSOR MACRAE, S. J., of Boston, Mass., B. A. Boston College, 1953; Ph. L. University of Louvain, 1954. Oriental Seminary.
- JAMES HALL MATHEWSON, of Baltimore, Md., A. B. Harvard University, 1951. Chemistry.
- THOMAS CARL MAYER, of Ft. Lauderdale, Fla., A. B. The University of Tennessee, 1953. Biology.
- JAMES METCALF McDOWELL, of Baltimore, Md., A. B. Columbia University, 1952. Writing.
Collection of Poems.
- MALCOLM MORROW, of Annandale, Va. Aesthetics of Literature.
- FRANK HENRY MUSIAL, of Buffalo, N. Y., A. B. The Johns Hopkins University, 1955. Writing.
A Collection of Poems.
- GEORGE ALEXANDER NOWAK, of Baltimore, Md., Dipl. of Maturity, College of Letters and Sciences, Warsaw, Poland, 1939. German.
- RICHARD JAMES O'CONNELL, of Philadelphia, Pa., B. S. in Ed. Temple University, 1956. Writing.
A Collection of Poems.
- WILLIAM CLOPTON PERKINS, of Lynchburg, Va., B. S. Duke University, 1955. Chemistry.
- FRANCIS EDWARD REINBERGER, of Gettysburg, Pa., A. B. Dickinson College, 1940; B. D. The Lutheran Theological Seminary, 1943. Oriental Seminary.
- MARTIN ROBERT RING, of New York, N. Y., A. B. University of Wisconsin, 1941. History.
The Growth of the Chinese Communist Army in Manchuria, August 1945–February 1947.
- GERARD HARRY ROTHSCHILD, of Baltimore, Md., A. B. Emory University, 1949. Psychology.
- WALTER SCHATZBERG, of Baltimore, Md., A. B. St. John's College, 1954. German.
- MARY COLEMAN SCHLOSSBERG, of Charlottesville, Va., A. B. University of Chicago, 1949. Political Economy.
The Effects of Worker Dislocation upon a Connecticut Town.
- MAX JOSEPH SCHROECK, of Erie, Pa., A. B. St. Louis University, 1951. German.
- DONALD SHERMAN, of Lyndhurst, N. J., A. B. Rutgers University, 1955. English.
- ALVIN ARTHUR SIGER, of Baltimore, Md. Biological Sciences.
A Study of the Breakdown of Creatine Phosphate and Adenosine Triphosphate in Iodoacetic Acid Poisoned Muscles.
- ALISON VERA SMITH, of New York, N. Y., A. B. The Johns Hopkins University, 1954. Physics.
Angular Distribution of Neutrons from $\text{Li}^9(\text{d}, \text{n})\text{Be}^8$.
- VIRENDRA KUMAR SRIVASTAVA, of Allahabad, India, B. S. Banaras Hindu University, 1948; M. S., 1950. Geology.
- GEORGE STEPANOVICH, of Maryland, B. A. Ohio State University, 1940. Political Economy.
- DOROTHY MAY TAYLOR, of Baltimore, Md., A. B. Goucher College, 1929. Education.
The Administration of the Christian Schools in Japan Related to the Members of the Interboard Committee in the Decade 1947-1956.
- JULES SYLVAN TEWLOW, of Baltimore, Md., A. B. West Virginia Wesleyan College, 1951. Business and Industrial Management.
Newspaper Local Display Advertising: A Study of Its Preparation and Processing.
- MAURYA FEODOROVNA TILLERY, of Baltimore, Md., B. S. The Johns Hopkins University, 1940. Writing.
Leonid Andreyev—Voice of the Nocturnal.
- PATRICIA BRADLEY TURPIN, of Baltimore, Md., A. B. Bowling Green State University, 1953. Philosophy.
- DAVID FREDERICK UNUMB, of Alexandria, Minn., A. B. Carleton College, 1955. Writing.
The Well-Made Play and the Dramaturgy of Henrik Ibsen, August Strindberg and Anton Chekhov.
- RICHARD CHARLES WHALEY, of Edgewater, Md., B. S. Rhode Island State College, 1950. Oceanography.
- JOHN KING WHITAKER, of Burnley, England, A. B. University of Manchester, 1956. Political Economy.
The Multiplier Effects of a Balanced Budget.

DOCTOR OF EDUCATION

WITH TITLE OF DISSERTATION

THOMAS ELLIOTT SHAUGHNESSY, of Aberdeen, Md., B. S.
Massachusetts Institute of Technology, 1933; M. A.
George Washington University, 1948.
Beginnings of National Professional Military Educa-
tion in America, 1775-1825.

(1)

DOCTORS OF PHILOSOPHY

WITH TITLES OF DISSERTATIONS

- ALEXANDER ABASHIAN, of Binghamton, N. Y., B. S. Purdue University, 1952. Physics.
Interactions of High Energy Pions with Nuclei.
- JOSEPH OLIVIER GILLES ALLARD, of Chibougamau, Canada, A. B. University of Montreal, 1948; B. S., 1951; M. A. Queen's University, 1953. Geology.
The Geology of a Portion of McKenzie Township, Chibougamau District.
- YOOSIF MOHAMMED ARAB, of Baghdad, Iraq, A. B. The Johns Hopkins University, 1953. Biology.
A Study of Some Aspects of Contact Chemoreception in the Blowfly *Phormia regina* Meigen.
- RUTH HORWITZ ARANOW, of Baltimore, Md. B. S. Brooklyn College, 1951; M. A. The Johns Hopkins University, 1952. Chemistry.
The Entropy Change upon Fusion.
- EMANUEL AVERBACH, of Chester, N. J., A. B. University of Pennsylvania, 1951. Psychology.
The Apparent Brightness of Maxima and Minima in Luminance Gradients.
- MOHAMED SALAH EL-DIN BARRADA, of Cairo, Egypt, B. S. Fouad First University, 1943; M. S. North Carolina State College, 1954. Bio-Climatology.
Responses of Dairy Cattle to Hot Environments with Special Emphasis on Respiratory Reactions.
- ALVIN L. BERMAN, of Baltimore, Md., A. B. The Johns Hopkins University, 1945. Physiology.
Somatic and Auditory Interaction in the Anterior Ectosylvian Gyrus of the Cerebral Cortex of the Cat.
- BERNARD DANIEL BLAUSTEIN, of Washington, D. C., B. S. in Ch. E. University of Pennsylvania, 1950; M. A. The Johns Hopkins University, 1951. Chemistry.
An Investigation of the Species Existing in Nitric Acid Solutions Containing Cerium (III) and Cerium (IV).
- DANIEL HOVEY CALHOUN, of Princeton, N. J., A. B. Yale University, 1952. History.
The American Civil Engineer, 1792-1843.
- JAMES HEISKELL CARPENTER, of Annapolis, Md., A. B. University of Virginia, 1949; M. A. The Johns Hopkins University, 1952. Oceanography.
A Study of Some Major Cations in Natural Waters.
- PHILIP WHEELER CHOQUETTE, of Hamilton, N. Y., B. S. Allegheny College, 1952; M. A. The Johns Hopkins University, 1954. Geology.
Petrography and Structure of the Cookeysville Formation near Baltimore, Maryland.
- ROBERT JAY COATES, of Washington, D. C., B. S. E. E. Michigan State College, 1943; M. S. University of Maryland, 1948. Physics.
A Millimeter-Wavelength Investigation of the Solar Chromosphere.
- LANCE EDWIN DAVIS, of Seattle, Wash., A. B. University of Washington, 1950. Political Economy.
United States Financial Intermediaries in the Early 19th Century: Four Case Studies.
- CHESTER DELUCA, of Staten Island, N. Y., B. S. Georgetown University, 1952. Biology.
Chemical and Enzymatic Studies on Flavin Adenine Dinucleotide.
- ROBERT HAROLD DETTRE, of Willow Grove, Pa., B. S. Lafayette College, 1952; M. A. The Johns Hopkins University, 1954. Chemistry.
Freezing Point Studies of the System Diphenyl Ether-Diphenylmethane.
- THOMAS McKEOWN DEVLIN, of Philadelphia, Pa., A. B. University of Pennsylvania, 1953. Physiological Chemistry.
Studies on Oxidative Phosphorylation.

- ROBERT ALLEN DURR, of New York, N. Y., A. B. Hofstra College, 1950; M. A. University of Connecticut, 1952. English.
On the Major Poetry of Henry Vaughan.
- SYDNEY EISEN, of Toronto, Canada, A. B. University of Toronto, 1950. History.
Frederic Harrison: The Life and Thought of an English Positivist.
- HARVEY ELI FINLEY, of Kansas City, Mo., A. B. Oberlin College, 1946; B. D. McCormick Theological Seminary, 1947. Oriental Seminary.
A Stylistic Approach to the Chronology of Selected Psalms. An Analysis of Psalms 67, 77, 93, 120-127, 129, 133 and 134.
- ARTHUR HAINES FITCH, of Madison, N. J., B. S. in Engr. Phys. University of Kansas, 1949; M. S., 1952. Physics.
The Paramagnetic Effect at the Superconducting Transition of Aluminum.
- JOSEPH FORD, of Niagara Falls, N. Y., B. S. Georgia Institute of Technology, 1952. Physics.
Quantization of the Finite Particle Maxwell Field.
- OLCOTT GATES, of Ruxton, Md., S. B. Harvard University, 1941; M. A. University of Colorado, 1950. Geology.
Tertiary Volcanism Brecciation in the Shoshone Range, Nevada.
- PER GLOERSEN, of Baltimore, Md., M. A. The Johns Hopkins University, 1952. Physics.
High Resolution Spectroscopy in the Near Infrared. The Spectrum of H_2 and D_2 .
- ROBERT GEORGE GREENLER, of Baltimore, Md., B. S. University of Rochester, 1951. Physics.
A Development of Interferometry for the Infrared Spectral Region using Tellurium Films.
- FRANCIS COLIN HABER, of Baltimore, Md., A. B. University of Connecticut, 1948; M. A. The Johns Hopkins University, 1952. History.
Revolution in the Concept of Historical Time: A Study in the Relationship between Biblical Chronology and the Rise of Modern Science.
- DAVID ROSWELL HAUSER, of Detroit, Mich., A. B. Grinnell College, 1952; M. A. The Johns Hopkins University, 1954. English.
The Neoclassical Ovid: Ovid in English Literature, 1660-1750.
- MOSHE HELD, of Jerusalem, Israel, M. A. Hebrew University, 1952. Oriental Seminary.
Studies in Ugaritic Lexicography and Poetic Style.
- RICHARD LAMOND IRWIN, of Baltimore, Md., B. E. The Johns Hopkins University, 1951; M. A., 1955. Chemistry.
The Absolute Entropies of the Chloride Ion and the Iodide Ion in Heavy Water.
- ERICH ISAAC, of Tel Aviv, Israel A. B. University of Colorado, 1954. Geography.
The First Century of the Settlement of Kent Island.
- STEPHEN FRANK JACOBS, of New York, N. Y., B. S. Antioch College, 1951. Physics.
Spectra and Zeeman Effects of Ruby Single Crystals at Low Temperatures.
- ROBERT EDWARD KANE, of Erie, Pa., B. S. Massachusetts Institute of Technology, 1953. Biology.
Studies on the Soluble Protein of the Sea Urchin Egg.
- FRANCIS THOMAS KENNEY, of New York, N. Y., B. S. St. Michaels College, 1951. Biology.
The Formation of Inorganic Pyrophosphate in Liver Microsomes.
- FREDERICK ALEXANDER KING, of Glen Rock, N. J., A. B. Stanford University, 1953; M. A. The Johns Hopkins University, 1955. Psychology.
Effects of Septal and Amygdaloid Lesions on Emotional Behavior and Conditioned Avoidance Responses in the Rat.
- STEPHEN CHARLES KINSKY, of Chicago, Ill., A. B. University of Chicago, 1951. Biology.
Neurospora Nitrate Reductase: The Role of Phosphate, Flavin, and Cytochrome c Reductase.
- JAMES DONALD KISSANE, of Grinnell, Iowa, A. B. Grinnell College, 1952. English.
The Poetry of Tennyson in Relation to Nineteenth-Century Attitudes toward Mythology.
- KWANG SOO LEE, of Seoul, Korea, M. D. Keijo Imperial University, 1941 (Present: Seoul National University). Biology.
The Effect of Narcotics, Temperature and Pressure on Oxidative Phosphorylation.
- SARA BACKES LEIGHTON, of Wallingford, Conn., A. B. Connecticut College, 1952. Biology.
Preparation and Properties of Pyridone Derivatives of Diphosphopyridine Nucleotide.
- ROBERT CRAWFORD LLOYD, of Baltimore, Md., B. S. The Johns Hopkins University, 1948; M. Ed., 1953. Education.
Teachers' Attitude toward Guidance: Selected Factors Associated with Teachers' Attitude toward Guidance Services in 24 Maryland Secondary Schools.

- WILLIAM VURNELL LOCKWOOD, of Baltimore, Md., B.S. Morgan State College, 1938; M.A. Northwestern University, 1947. Education.
Realism of Vocational Preference.
- JOHN LEASK LUMLEY, of Baltimore, Md., A.B. Harvard University, 1952; M.S.E. The Johns Hopkins University, 1954. Aeronautics.
Some Problems Connected with the Motion of Small Particles in Turbulent Fluid.
- RICHARD ALAN MACKSEY, of Montclair, N.J., A.B. The Johns Hopkins University, 1953; M.A., 1953. Aesthetics of Literature.
La Lanterne Magique: Etudes sur l'Esthetique de Marcel Proust.
- ROBERT PHYFE MADDEN, of Relay, Md., B.S. University of Rochester, 1950. Physics.
Study of CO₂ Absorption Spectra between 15 and 18 Microns.
- CAROL HOPKINS MADDISON, of Paris, France, A.B. Queen's University, 1946; M.A., 1952. English.
Apollo and the Nine: The Renaissance-Baroque Ode in Italy, France, and England.
- WILLIAM HERRON MCGOWAN, of Baltimore, Md., A.B. Kenyon College, 1953. Philosophy.
Berkeley's General Theory of Signs.
- ROBERT GRIER MCPHERSON, of Athens, Ga., A.B. University of Georgia, 1943; M.A., 1948. History.
The Evolution of Liberal Education in Oxford and Cambridge, 1800-1877.
- CHARLES HENRY MURPHY, JR., of Kingsville, Md., B.S. Georgetown University, 1947. Aeronautics.
The Free Flight Motion of a Symmetric Missile Acted on by Nonlinear Forces and Moments.
- MARC LEON NERLOVE, of Washington, D.C., A.B. University of Chicago, 1952; M.A. The Johns Hopkins University, 1955. Political Economy.
Estimates of the Elasticities of Supply of Corn, Cotton and Wheat.
- BERNARD OKUN, of Brooklyn, N.Y., A.B. Brooklyn College, 1953. Political Economy.
Essays on the Trends in the Birth Rates: An Analysis of the Experience in the United States since 1870.
- BERNARD RODERICK PELLETIER, of Toronto, Canada, B.S. McGill University, 1950; M.S. McMaster University, 1953. Geology.
Pocono Paleocurrents.
- CHARLES CALVIN PETTY, of Baltimore, Md., A.B. Wabash College, 1948; M.S. California Institute of Technology, 1949. Physics.
Absorption Spectra and Zeeman Effects of Some Erbium Compounds at Low Temperature.
- ALVAH HOUCK PHILLIPS, JR., of Baltimore, Md., B.S. Allegheny College, 1949; M.A. University of Buffalo, 1952. Physiological Chemistry.
Hepatic TPN-Cytochrome c Reductase and Its Hormonal Control.
- CHARLES BLAISDELL REIMER, of Baltimore, Md., B.S. Massachusetts Institute of Technology, 1949; M.S., 1949. Bio-Chemistry.
Quantitative Growth Studies of Individual Cells and Populations with Micro-cultures.
- RICHARD WILLIAM RICHARDSON, of Clinton, N.Y., A.B. Cornell University, 1948. Political Economy.
Types of Intergovernmental Commodity Agreements and Their Stabilizing Effects.
- MARY LUCILE RION, of Lexington, Ky., A.B. University of Kentucky, 1943; M.A. Smith College, 1946. English.
Civilization on the Frontier: Literary Activity in Kentucky before 1830.
- PALMER ROGERS, JR., of New York, N.Y., B.S. Yale University, 1950. Biology.
The Permeability and Luminescent Response of a Dark Mutant of *Achromobacter fischeri* to Aliphatic Aldehydes.
- PIERRE SAUVÉ, of Montreal, Canada, B.S. University of Montreal (Ecole Polytechnique), 1951; M.S. Queen's University, 1953. Geology.
The Geology of the East Half of the Gerido Lake Area, New Quebec, Canada.
- ROGER LOUIS BERNARD SLAKEY, JR., of Sacramento, Calif., A.B., University of California at Berkeley, 1949; M.A. University of Michigan, 1951. Aesthetics of Literature.
Anthony Trollope: A Study in the Foundations of Choice.
- GERALD ALFRED SMITH, of Canandaigua, N.Y., A.B. University of Notre Dame, 1942; M.A. University of Rochester, 1947. English.
John Marston: A Study of his Mind and Style.
- JOSEPH SONNENFELD, of Newark, Del., B.S. Oregon State College, 1952. Geography.
Changes in Subsistence among the Barrow Eskimo.
- WILLIAM JOHN STEKIEL, of Milwaukee, Wis., B.S. Marquette University, 1950. Biophysics.
The Relation of Ammonia Production to Neuronal Activity and Carbohydrate Metabolism in the Sympathetic Ganglion.
- SHLOMO ZVI STERNBERG, of New York, N.Y., A.B. The Johns Hopkins University, 1953; M.A., 1955. Mathematics.
Some Problems in Discrete Non-Linear Transformations in One and Two Dimensions.

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| MATHEW POTIEN THEKAEKARA, S. J., of Madras, India,
A. B. St. Joseph's College, 1937; M. A., 1939. Physics.
The Spectrum of Xenon I. | ROBIN WILLIAM WINKS, of Boulder, Colo., A. B. University
of Colorado, 1952; M. A., 1953. History.
Maple Leaf and Eagle: A Study of Canadian-American
Relations during the American Civil War. |
| MILTON CHARLES VANIK, of Baltimore, Md., M. A. The
Johns Hopkins University, 1954. Chemistry.
Dielectric Properties of Oxide Cracking Catalysts. | ROBERT WHITE WINTER, of Los Angeles, Calif., A. B. Dart-
mouth College, 1947. History.
The Organic Principle in American Architectural
Theory. |

